Format No: CP/TF/01

## TEST REPORT ON COARSE AGGREGATES

**Lab ID** : **CP-2017-12-19-05** **Date: 22-12-17**

**Sample ID No** : 2017-12-19-05 /02(a)

**PHYSICAL PROPERTIES**

| Sl.no | Tests | Result | Requirements as per IS:383-2016 |
|---|---|---|---|
| 1 | Flakiness Index(%) | 12.5 | Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate |
| 2 | Elongation Index(%) | 11.5 | |
| 3 | Specific Gravity | 2.68 | _ |
| 4 | Bulk Density(Loose) (Kg/l) | 1.54 | _ |
| 5 | Bulk Density(Compacted) (Kg/l) | 1.56 | _ |
| 6 | Water Absorption(%) | 0.21 | _ |

**Note:**

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Samples will be disposed after 90 days from the date of issue of test certificate

**FOR CIVIL Pro.**

**R KARTHIK RECHAN**
Authorized Signatory
**Quality Manager**

CIVIL Pro Sig..... Date..... BANGA


****End of Report****

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HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

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## TEST REPORT ON COARSE AGGREGATES

| | | | |
|---|---|---|---|
| **Lab ID** | : | **CP-2017-12-19-05** | **Date: 22-12-17** |
| **Customer** | : | Assistant Executive Engineer, Project Sub division, BBMP, Bangalore. | |
| **Address** | : | Project Sub division, BBMP, Bangalore. | |
| **Project Name** | : | Construction of CC roads and drains in sanitary core B sector in Yelahanka New Town in Ward no.04 | |
| **Agency** | : | Sri. R. Subramani, No.105, 3rd Circular road, Nandini layout, Bangalore-560096. | |
| **Customer Reference** | : | EE(Project)/Ynk Zone/WO/80/2017-18 | |
| **Source of Sample** | : | Sample supplied by Agency | |
| **Sample Condition** | : | Satisfactory | |
| **Date of Receipt** | : | 19-12-17 | |
| **Sample ID No** | : | 2017-12-19-05 /02(b) | |
| **Sample Type/ Size** | : | 20mm down size coarse aggregate | |
| **Reference to BIS codes** | : | IS: 383:2016 (Specification for Coarse and fine Aggregates )<br>IS: 2386 :1963(Part - 1,3,4) RA2011<br>IS 2386 Part 1: Particle Size and Shape<br>IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption<br>IS 2386 Part 4: Mechanical Properties | |
| **Date of test** | : | 19-12-17 | |

**SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:**

**Total weight taken : 5000 grams**

| Sample No. | Sieve No. | Weight Retained in gms | Cumulative Weight Retained in gms | % Cumulative Weight Retained | % Passing | Required as per IS 383:2016 |
|---|---|---|---|---|---|---|
| 1 | 40 mm | 0 | 0 | 0 | 100 | 100 |
| 2 | 20 mm | 223 | 223 | 4.5 | 95.5 | 90-100 |
| 3 | 10 mm | 2435 | 2658 | 53.2 | 46.8 | 25-55 |
| 4 | 4.75 mm | 2100 | 4758 | 95.2 | 4.8 | 0-10 |
| 5 | Pan | 242 | 5000 | 100 | 0 | – |



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## TEST REPORT ON COARSE AGGREGATES

**Lab ID** : **CP-2017-12-19-05**

**Sample ID No** : 2017-12-19-05 /02(b) **Date: 22-12-17**

**PHYSICAL PROPERTIES**

| Sl.no | Tests | Result | Requirements as per IS:383-2016 |
|---|---|---|---|
| 1 | Flakiness Index(%) | 12.4 | Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate |
| 2 | Elongation Index(%) | 11.8 | |
| 3 | Specific Gravity | 2.65 | – |
| 4 | Bulk Density(Loose) (Kg/l) | 1.54 | – |
| 5 | Bulk Density(Compacted) (Kg/l) | 1.59 | – |
| 6 | Water Absorption(%) | 0.22 | – |
| 7 | Aggregate crushing Value(%) | 22.6 | Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface. |
| 8 | Aggregate Impact Value(%) | 21.7 | 30% for Aggregates to be used in concrete for wearing Surface,<br>45% for Aggregates to be used in concrete other than for wearing Surface. |

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**R KARTHIK RECHAN**
Authorized Signature
**Quality Manager**


*End of Report*

Format No: CP/TF/01

# TEST REPORT OF FINE AGGREGATE

**Lab ID** : **CP-2017-12-19-05** **Date: 22-12-17**

**Customer** : Assistant Executive Engineer, Project Sub division, BBMP, Bangalore.

**Address** : Project Sub division, BBMP, Bangalore.

**Project Name** : Construction of CC roads and drains in sanitary core B sector in Yelahanka New Town in Ward no.04

**Agency** : Sri. R. Subramani, No.105, 3rd Circular road, Nandini layout, Bangalore-560096.

**Customer's Reference** : EE(Project)/Ynk Zone/WO/80/2017-18

**Source of Sample** : Sample supplied by Agency

**Sample Condition** : Satisfactory

**Date of Receipt** : 19-12-17

**Sample ID No** : 2017-12-19-05 /03

**Sample Type** : Fine Aggregate

**Reference to BIS codes** : IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2012
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption

**Date of test** : 19-12-17

**Total weight taken** : 1000 grams

| Sl.no | Sieve Size | Weight Retained (gms) | Cumulative Weight Retained (gms) | % Cumulative Weight Retained | % Passing | Requirement as per IS 383:2016 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Grading Zone I | Grading Zone II | Grading Zone III | Grading Zone IV |
| 1 | 10 mm | 0 | 0 | 0.0 | 100.0 | 100 | 100 | 100 | 100 |
| 2 | 4.75 mm | 84 | 84 | 8.4 | 91.6 | 90-100 | 90-100 | 90-100 | 95-100 |
| 3 | 2.36 mm | 154 | 238 | 23.8 | 76.2 | 60-95 | 75-100 | 85-100 | 95-100 |
| 4 | 1.18 mm | 166 | 404 | 40.4 | 59.6 | 30-70 | 55-90 | 75-100 | 90-100 |
| 5 | 600 micron | 178 | 582 | 58.2 | 41.8 | 15-34 | 35-59 | 60-79 | 80-100 |
| 6 | 300 micron | 175 | 757 | 75.7 | 24.3 | 5-20 | 8-30 | 12-40 | 15-50 |
| 7 | 150 micron | 163 | 920 | 92.0 | 8.0 | 0-10 | 0-10 | 0-10 | 0-15 |
| 8 | Pan | 80 | 1000 | 100.0 | 0.0 | --- | --- | --- | --- |

**Result :The tested Sample Conforms to Grading Zone II**



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# TEST REPORT OF FINE AGGREGATE

**Lab ID** : **CP-2017-12-19-05** **Date: 22-12-17**

**Sample ID No** : 2017-12-19-05 /03

**PHYSICAL PROPERTIES**

| Sl.no | Tests | Result | Requirements as per IS 383:2016 |
|---|---|---|---|
| 1 | Water Absorption(%) | 1.75 | _ |
| 2 | Specific Gravity | 2.55 | _ |
| 3 | Material finer than 75 micron(%) | 7.1 | Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10% |

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**FOR CIVIL Pro.**

CIVIL Pro Sig..... Date..... BANGALORE

**R KARTHIK RECHAN**
Authorized Signatory
**Quality Manager**


****End of Report****

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# TEST REPORT OF PRECAST COVER SLAB

**Date: 25-12-17**

| | | |
|---|---|---|
| **Lab ID** | : | **CP-2017-12-19-05** |
| **Customer** | : | Assistant Executive Engineer, Project Sub division, BBMP, Bangalore. |
| **Address** | : | Project Sub division, BBMP, Bangalore. |
| **Project Name** | : | Construction of CC roads and drains in sanitary core B sector in Yelahanka New Town in Ward no.04 |
| **Agency** | : | Sri. R. Subramani, No.105, 3rd Circular road, Nandini layout, Bangalore-560096. |
| **Customer's Reference** | : | EE(Project)/Ynk Zone/WO/80/2017-18 |
| **Source of Sample** | : | Sample supplied by Agency |
| **Sample Condition** | : | Satisfactory |
| **Date of Receipt** | : | 19-12-17 |
| **Sample ID No** | : | 2017-12-19-05 /06 |
| **Sample Type /Size** | : | Precast Cover Slab |
| **Reference to BIS codes** | : | IS: 516 - 1959 Methods of Tests for Strength of Concrete |
| **Date of test** | : | 20/12/2017 |

| Sl. No. | Identification Mark | Diameter of the core | Height of the core | Weight of the core | Area | Failure Load | Core Compressive strength | Corrected Cylinder Compressive strength | Equivalent Cube Compressive strength |
|---|---|---|---|---|---|---|---|---|---|
| | | (mm) | (mm) | (kg) | (Sq.mm) | (KN) | ($N/mm^2$) | ($N/mm^2$) | ($N/mm^2$) |
| 1 | Cover Slab-1 | 75.36 | 100.22 | 1.316 | 4460 | 73.9 | 16.6 | 15.4 | 19.3 |
| 2 | Cover Slab-2 | 75.28 | 100.37 | 1.322 | 4450 | 75.3 | 16.9 | 15.7 | 19.7 |
| 3 | Cover Slab-3 | 75.19 | 100.42 | 1.318 | 4439 | 72.5 | 16.3 | 15.2 | 19.0 |

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****End of Report****

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